

Applicant : Andreas Detlefsen, et al.
Serial No. : 10/544,136
Filed : August 22, 2005
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Attorney's Docket No.: 14219-094US1 / P2003,0048
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Amendments to the Drawings:

The attached replacement sheets of drawings includes additional Fig. 1d.

Fig. 1d illustrates the “additional acoustic path” of claim 36, as required by the Examiner.

Attachments following last page of this Amendment:

Replacement Sheet (13 pages)

REMARKS

Claims 21-42 are presented for further examination, of which claims 21, 39, 40, and 42 are independent. Favorable reconsideration and further examination are respectfully requested.

Allowable Subject Matter

Applicants acknowledge Examiner's conclusion that claims 39, 40, and 42 would be allowable if rewritten in independent form. Applicants have amended claims 39, 40, and 42 placing each in independent form including all the features of their respective base claim and any intervening claims.

Drawings

The drawings were objected to under 37 C.F.R. § 1.83(a). The Examiner requires that "the 'parallel transducers' of claim 33, [and] 'additional acoustic path with at least one serial transducer connected with the first electrical port and located along the signal line' of claim 36 must be shown or the features(s) canceled from the claim(s)." In this regard, Applicants have canceled claim 33 and submit FIG. 1d, which shows the features recited in claim 36.

Claim objections

Claims 27 and 40 were objected to because of the following alleged informalities:

"With respect to claim 27, 'in series with the coupler transducers' is objected because the claim and its parent claim appear to recite only a single coupler transducer."

“With respect to claim 40, line 2-3 appears to be incomplete because the word ‘which’ indicated something should be described after ‘second coupler transducer.’”

As shown above Applicants have amended claims 27 and 40. Applicants request reconsideration and withdrawal of the objections to claims 27 and 40 in view of the foregoing claim amendments.

35 U.S.C. § 102

Claims 21-24, 26-29, 31, 35, 37, 38 and 41 were rejected as being anticipated by International Publication No. WO 01/56151¹ (Takahashi). Claims 21, 22, 24, 26-29, 31, 34, 35, 37, 38 and 41 were rejected as being anticipated by International Publication No. WO 01/71911² (Hagn). As shown above, Applicant has amended independent claim 21 to recite that the first serial transducer and the second serial transducer are electrically connected in series in the signal line. Thus, as amended, claim 21 covers apparatus that include a first partial filter comprising first and second acoustically coupled transducers that are in the same acoustic path, and being electrically connected in series, the first partial filter being electrically connected in series with a second partial filter which is a DMS (Double Mode Saw) filter. In view of these amendments, withdrawal of the art rejections is respectfully requested.

In this regard, the Office Action (pages 3-4) equates Takahashi's IDT electrodes 2 and 1, Fig. 1, to the first serial transducer and the second serial transducer, respectively, of Applicants' claims. The Office Action contends, “Takahashi discloses ... the first serial transducer (2) and

¹ Using the alleged equivalent U.S. Patent No. 6,504,454 as the translation.

² Using the alleged equivalent U.S. Patent No. 6,791,437 as the translation.

the second serial transducer (1) being located in an acoustic path and acoustically coupled with one another (see figure).” (See, e.g., Office Action of February 29, 2008 at pages 3-4). However, Takahashi still does not disclose or suggest first and second serial transducers which are also electrically connected in series (i.e., in addition to being acoustically coupled and in the same acoustic path). Applicants further submit that there is no disclosure or suggestion in Takahashi to electrically connect the IDT electrodes 1 and 2 in series.

In view of the foregoing discussion, Applicants request reconsideration and withdrawal of the rejection of claims 21-24, 26-29, 31, 35, 37, 38 and 41 as being anticipated by Takahashi.

Regarding Hagn, the Office Action (page 6) equates Hagn's transducers 121 and 110, Fig. 1, to the first serial transducer and the second serial transducer, respectively, of Applicants' claims. The Office Action contends, that “Hagn et al. disclose an apparatus (Fig. 1) comprising: ... [a] first serial transducer (121) and [a] second serial transducer (110) being located in an acoustic path and acoustically coupled with one another (see figure).” (See, e.g., Office Action of February 29, 2008 at page 6). However, Hagn still fails to disclose or suggest first and second serial transducers which are, in addition to being acoustically coupled and in the same acoustic path, also electrically connected in series. Nor does Hagn indicate that such an arrangement would be in any way beneficial. Nor would a person of ordinary skill in the art have modified Hagn's apparatus in a way to provide such an arrangement.

In view of the foregoing discussion, Applicants request reconsideration and withdrawal of the rejection of claims 21, 22, 24, 26-29, 31, 34, 35, 37, 38 and 41 as being anticipated by Hagn.

35 U.S.C. § 103

Claims 21, 22, 24-33, 35-38, and 41 were also rejection over Japanese Publication No. 2001-292050 (Mita) in view of International Publication No. WO 03/081773³ (Bauer).

The Office Action (pages 3-4) equates elements 137 and 135 of Mita, Fig. 11, to the first partial filter and the second partial filter, respectively, of Applicants' claims. The Office Action contends that "the first partial filter (137) comprises a first serial transducer (the first resonator reached from tracing at port 136c) and a second serial transducer (the second resonator reached from tracing at port 136c) located in series branches on the signal line." (See, e.g., Office Action of February 29, 2008 at page 9). The Examiner acknowledges that "Mita et al. does not disclose explicitly the first transducer and the second transducer being located in an acoustic path and acoustically coupled with one another" and apparently adds Bauer for allegedly teaching these missing features. (See, e.g., Office Action of February 29, 2008 at page 10). The Office Action (page 10) equates the first and second interdigital transducers IS1 and IS2 of Bauer, Fig. 1, to the first partial filter and the second partial filter, respectively, of Applicants' claims. According to Bauer, "[b]oth of the interdigital transducers are arranged in-line consecutively in the propagation direction and close to one another, so that they can acoustically couple with one another, as indicated by the double-arrow K." (See, e.g., Bauer at col. 9, lines 43-47). The Office Action suggests that "it would have been obvious to use Bauer et al.'s ladder filter of two series resonator and a parallel resonator in place of Mita et al.'s ladder filter (Mita: 137)." (See, e.g., Office Action of February 29, 2008 at page 10). However, even if Mita's device were

³ Using the alleged equivalent U.S. Patent No. 7,304,553 as the translation.

modified to include the features of Bauer's Fig. 1 as suggested by the Examiner, the resulting device still would not provide first and second serial transducers which are, in addition to being acoustically coupled and located in the same acoustic path, also electrically connected in series, as required by Applicants' claims. Nor would a person of ordinary skill in the art have modified the resulting device to have such an arrangement. Accordingly, claim 21 is believed to be patentable.

Each of the dependent claims is believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim, in light of the foregoing amendments, and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

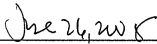
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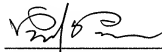
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Please charge any additional fees, not already covered by check, or credit any
overpayment, to deposit account 06-1050, referencing Attorney Docket No. 14219-094US1.

Respectfully submitted,

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